

REDACTED DIRECT TESTIMONY

OF

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FINANCIAL ANALYST

FINANCE DEPARTMENT

FINANCIAL ANALYSIS DIVISION

ILLINOIS COMMERCE COMMISSION

COMMONWEALTH EDISON COMPANY

**Petition for Approval of Delivery Services Tariffs and Tariff Revisions
and Residential Delivery Services Implementation Plan, and for
Approval of Certain Other Amendments and Additions
to its Rates, Terms, and Conditions**

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Witness _____

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Witness Identification

1 **Q. Please state your name and business address.**

2 A. My name is Janis Freetly. My business address is 527 East Capitol Avenue,
3 Springfield, Illinois 62701.

4 **Q. What is your current position with the Illinois Commerce Commission**
5 **("Commission")?**

6 A. I am currently employed as a Financial Analyst in the Finance Department of the
7 Financial Analysis Division.

8 **Q. Please describe your qualifications and background.**

9 A. In May of 1995, I earned a Bachelor of Business degree in Marketing from
10 Western Illinois University. I received a Master of Business Administration degree,
11 with a concentration in Finance, from Western Illinois University in May of 1998. I
12 have been employed by the Commission since September of 1998.

13 **Q. What is the purpose of your testimony in this proceeding?**

14 A. The purpose of my testimony and accompanying schedules is to present my
15 analysis of the cost of capital of, and recommend an overall rate of return for, the

16 electric delivery service operations of Commonwealth Edison Company
17 ("ComEd").

Cost of Capital

18 **Q. Please summarize your cost of capital findings.**

19 **A.** The overall cost of capital for ComEd is 8.74%, as shown on Schedule 5.1.

20 **Q. Why is it important to determine a reasonable cost of capital for a public**
21 **utility?**

22 **A.** A primary objective of regulation is to minimize the cost of reliable service to
23 ratepayers while allowing public utilities to earn a fair and reasonable rate of
24 return. When a public utility is authorized a rate of return equal to a reasonable
25 cost of capital, the interests of ratepayers and investors are properly balanced. If
26 the authorized rate of return is greater than a reasonable cost of capital,
27 ratepayers are burdened with excessive rates. Conversely, if the authorized rate
28 of return is less than a reasonable cost of capital, the utility may be unable to raise
29 capital at a reasonable cost and ultimately may be unable to raise sufficient capital
30 to meet demands for service. Therefore, the interests of ratepayers and investors
31 are best served when a utility's allowed rate of return is set equal to a reasonable
32 overall cost of capital.

33 **Q. What is the overall cost of capital for a public utility?**

34 A. The overall cost of capital is the sum of the component costs of the capital
35 structure (i.e., debt, preferred stock, and common equity) after each is weighted by
36 its proportion to total capital. It represents the rate of return the public utility needs
37 to earn on its assets to satisfy contractual obligations to, or the market
38 requirements of, its investors.

Capital Structure

39 **Q. Does capital structure affect the overall cost of capital?**

40 A. Yes. Financial theory suggests capital structure will affect the value of a firm and,
41 therefore, its cost of capital, to the extent it affects the expected level of cash flows
42 that accrue to third parties (i.e., other than debt and stock holders). Employing
43 debt as a source of capital reduces a company's income taxes,¹ thereby reducing
44 the cost of capital. However, as reliance on debt as a source of capital increases,
45 so does the probability of bankruptcy. As bankruptcy becomes more probable,
46 expected payments to attorneys, trustees, accountants and other third parties
47 increase. Simultaneously, the expected value of the income tax shield provided by
48 debt financing declines. Beyond a certain point, a growing dependence on debt

¹ The tax advantage debt has over equity at the corporate level is partially offset at the individual investor level. Debt investors receive returns largely in the form of current income (i.e., interest). In contrast, equity investors receive returns in the form of both current income (i.e., dividends) and capital appreciation (i.e., capital gains). Taxes on capital gains are lower than taxes on interest and dividend income because capital gains tax rates are lower, and taxes on capital gains are deferred until realized.

49 as a source of funds increases the overall cost of capital. Therefore, the
50 Commission should not determine the overall rate of return from a utility's actual
51 capital structure if it determines that capital structure adversely affects the overall
52 cost of capital.

53 An optimal capital structure would minimize the cost associated with the capital a
54 utility raises and maintain its financial integrity. Unfortunately, determining whether
55 a capital structure is optimal remains problematic because (1) the cost of capital
56 is a continuous function of the capital structure, rendering its precise measurement
57 along each segment of the range of possible capital structures problematic; (2) the
58 optimal capital structure is a function of operating risk, which is dynamic; and (3)
59 the relative costs of the different types of capital vary with dynamic market
60 conditions. Consequently, one should determine whether the capital structure is
61 consistent with the financial strength necessary to access the capital markets
62 under all conditions, and if so, whether the cost of that financial strength is
63 reasonable.

64 **Q. What capital structure did ComEd propose for setting rates?**

65 A. ComEd proposed using a pro-forma December 31, 2000 capital structure that
66 contains 53.99% long-term debt and 46.01% common equity, as shown on
67 Schedule 5.1.²

68 **Q. What capital structure do you recommend?**

69 A. I recommend the Commission adopt ComEd's March 31, 2001 capital structure
70 consisting of roughly 61% debt and 39% equity, as shown on Schedule 5.1.

71 **Q. Why should the Commission not adopt the capital structure proposed by**
72 **ComEd?**

73 A. The Commission should not adopt the pro-forma December 31, 2000 capital
74 structure proposed by ComEd because it is adjusted inconsistently. No pro-forma
75 adjustments were made to the balance of regular long-term debt. However,
76 ComEd adjusted the balance of long-term debt to reflect forecasted retirements of
77 transitional funding instruments from 2001 through 2002. The balance of common
78 equity was adjusted to account for ComEd's corporate restructuring in January,
79 2001. Therefore, ComEd made inconsistent pro-forma adjustments with respect
80 to time. The different components of the capital structure should reflect
81 adjustments over consistent time periods.

² ComEd Schedule 11.1, page 1 of 3.

82 **Q. Why is consistency in capital structure adjustments important?**

83 A. Consistency in capital structure adjustments is necessary to accurately measure
84 the amount and proportions of capital in use as of a certain point in time. Each
85 retirement of capital, scheduled or otherwise, requires funds from either asset
86 liquidations or new capital such as debt, preferred stock, or common equity.
87 Consequently, ComEd's pro forma capital structure understates the amount of
88 capital in use as of December 2000 and December 2002. ComEd's pro-forma
89 adjustments imply that it will generate enough funds internally to cover the
90 retirement of these transitional funding obligations.³ However, without forecasted
91 financial statements, that implication cannot be verified.

92 **Q. Did you request forecasted financial statements for the years 2001 and**
93 **2002?**

94 A. Yes. However, ComEd objected to that request and failed to provide those
95 forecasted financial statements. I have provided ComEd's response to that data
96 request as Attachment A.

97 **Q. Should short-term debt be included in the capital structure of ComEd?**

98 A. No. Short-term debt is not a permanent source of financing rate base investments
99 by ComEd.

100 **Q. Should preferred stock be included in the capital structure of ComEd?**

101 A. No. ComEd reported a zero balance of preferred securities outstanding as of
102 March 31, 2001.

103 **Q. How did you determine the balance of long-term debt?**

104 A. The balance of long-term debt should reflect the carrying value of all of the
105 outstanding debt issues, including the Transitional Funding Obligations. I began
106 with the face amount outstanding balances as reported in ComEd's FERC Form 1
107 Annual Report for the year ended December 31, 2000. From those balances, I
108 subtracted the March 31, 2001 balances of unamortized debt discount or premium
109 and the unamortized debt expense. I also accounted for the unamortized loss and
110 gain on reacquired debt for those issues that have been retired. As shown on
111 Schedule 5.2, the resulting carrying value of long-term debt equals
112 \$7,629,187,696.

113 **Q. How did you determine the March 31, 2001 balances of unamortized**
114 **discount and premium and the unamortized debt expense?**

115 A. I began with the balances listed in ComEd's FERC Form 1 Annual Report for the
116 year ended December 31, 2000. Since the balances listed in the FERC report
117 are as of the date of issuance, I subtracted the amortization from the issuance

³ Response of ComEd to Staff Data Request JF-2.08.

118 date through March 31, 2001. I computed the amortization on a straight-line basis
119 over the lives of the respective issues, in accordance with the methodology
120 followed by ComEd.⁴

121 **Q. Why didn't you use the unamortized debt discount and premium balances**
122 **reported by ComEd on Schedule WPFIN-3.1?**

123 A. ComEd adjusted the unamortized discount and premium balances to reflect the
124 difference between the estimated fair market value and the carrying value of each
125 long-term debt issue.⁵ ComEd made such adjustments to reflect the purchase
126 method of accounting used to account for the merger of PECO and Unicom.
127 However, since rates are set on the basis of original cost for ComEd, original,
128 actual costs should be used to calculate the balance and embedded cost of debt.
129 Further, restating carrying value⁶ to fair market value produces illogical debt costs.
130 Debt issues bearing embedded interest rates below current market interest rates
131 are reduced in carrying value. Conversely, debt issues bearing embedded
132 interest rates above current market interest rates are increased in carrying value.
133 Since the cost of debt equals total interest expense divided by carrying value,
134 decreases in the carrying value of debt issues bearing below market interest costs
135 would increase the cost of debt while increases in the carrying value of debt issues
136 bearing above market interest costs would decrease the cost of debt. This would

⁴ Response of ComEd to Staff Data Request JF-1.06.

⁵ Response of ComEd to Staff Data Request JF-1.03.

137 result in ratepayers overcompensating ComEd for its below market cost debt and
138 under compensating ComEd for its above market cost debt. Therefore, I used the
139 actual discount or premium balance as of the issuance date as the starting point
140 for determining the unamortized balance of discount or premium as of March 31,
141 2001.

142 **Q. How did you determine the balance of common equity?**

143 A. To determine the balance of common equity, I began with the total shareholders
144 equity balance listed in the 10Q Quarterly Report for the quarter ended March 31,
145 2001. I subtracted the preferred stock of a subsidiary from that balance to arrive
146 at the balance shown on Schedule 5.1.

147 **Q. Is your recommended capital structure reasonable for determining**
148 **ComEd's overall rate of return?**

149 A. Yes. I compared my March 31, 2001 proposed capital structure for ComEd to
150 industry standards. For the four quarters ending with the first quarter of 2001, the
151 weighted average common equity ratio for the electric utilities in *Standard &*
152 *Poor's Utility Compustat* equaled 34.01%, with a standard deviation of 9.49%.
153 For the four quarters ending with the first quarter of 2001, the weighted average
154 common equity ratio for the gas distribution companies in *Standard & Poor's*

⁶ The carrying value represents the proceeds available to the Company from the issuance of debt after accounting for any discounts or premiums and expenses.

Utility Compustat equaled 42.05%, with a standard deviation of 6.70%. The 39.36% common equity ratio that I am proposing for ComEd is within one standard deviation of the average of both industries and between their average equity ratios; therefore, it can be considered reasonable.

Standard & Poor's ("S&P") categorizes debt securities on the basis of the risk that a company will default on its interest or principal payment obligations. The resulting credit rating reflects both the operating and financial risks of a utility.⁷ Although no formula exists for determining a credit rating, S&P publishes mean and median values of various financial ratios by credit rating. Electric utilities with an A credit rating have a mean total debt ratio of 50.64% and a mean common equity of 44.82%.⁸ Gas distribution utilities with an A credit rating have a mean total debt ratio of 48.80% and a mean common equity ratio of 50.30%.⁹ Given that 35% of ComEd's debt is composed of relatively low cost Transitional Funding Notes ("TFNs"), the proximity of ComEd's capital structure to those industry standards indicates that the former is reasonable for the purpose of setting rates.

Cost of Long-Term Debt

Q. What is the embedded cost of long-term debt for ComEd?

⁷ *Standard & Poor's Utility Financial Statistics*, June 1999, p. 3; *Standard & Poor's Utilities Rating Service: Industry Commentary*, May 20, 1996, p. 1.

⁸ *Standard & Poor's Financial Medians Electric Utilities*, www.ratingsdirect.com, July 7, 2000.

⁹ *Standard & Poor's Financial Medians Gas Distribution*, www.ratingsdirect.com, July 7, 2000.

172 A. As of March 31, 2001, the embedded cost of long-term debt was 6.82%, as shown
173 on Schedule 5.2.

174 Q. **Please describe the adjustments you made to ComEd's debt schedule.**

175 A. As mentioned previously, I computed the unamortized discount or premium and
176 the unamortized debt expense based on the balances at issue reported in the
177 FERC Form 1 annual report for the year ended December 31, 2000. The annual
178 amortization of debt discount or premium and expense was adjusted to reflect
179 straight-line amortization of their respective unamortized balances over the life of
180 each issue. I also itemized the annual amortization of the unamortized debt
181 expense associated with reacquired issues.

182 I included the annual publishing expense fees in the annual amortization of debt
183 expense. However, I did not include the fees in unamortized debt expense. These
184 are costs of redeeming sinking fund debentures that ComEd amortizes over
185 twelve months.¹⁰ Given that ComEd proposed to recover these costs in one year,
186 recovery of a return on an unamortized balance is inappropriate since there is no
187 unamortized balance remaining following twelve months amortization.

188 I updated the interest rates on the variable rate debt to reflect current interest rates.
189 For the Illinois Development Finance Authority Series 1994B and 1994C, I used
190 the current 2.57% rate on "Aaa" rated, one-year municipal debt published by the

¹⁰ ComEd Response to Staff Data Request JF-4.01.

191 Municipal Market Advisors.¹¹ For the variable rate Senior notes, I used the current
192 3.59% LIBOR rate¹², plus 0.50% for the Senior notes due 2002 and plus 0.625%
193 for the Senior notes due 2003.¹³

194 **Cost of Common Equity**

195 **Q. What is ComEd's cost of common equity?**

196 A. My analysis indicates that the cost of common equity for ComEd's delivery service
197 operations is 11.71%.

198 **Q. How did you measure the investor-required rate of return on common**
199 **equity for ComEd?**

200 A. I measured the investor-required rate of return on common equity for ComEd with
201 the discounted cash flow ("DCF") and risk premium models. Since ComEd does
202 not have market-traded common stock, DCF and risk premium models cannot be
203 applied directly to ComEd, therefore, I applied both models to a sample of
204 integrated electric utility companies and a sample of gas distribution companies.
205 ComEd witness Daniel E. Thone included a sample of gas utilities due to their
206 primary function as a delivery services provider, and the gas industry has already

¹¹ Municipal Market Advisors - Municipal Consensus 'Aaa' General Obligation Yield Analysis, August 17, 2001, <http://www.bondresources.com/Municipal/Rates>.

¹² *The Wall Street Journal*, August 13, 2001.

¹³ Supplemental Response of ComEd to Staff Data Request FIN-3.

207 moved toward deregulation.¹⁴ I also included a gas sample, however, gas utilities
208 may be exposed to commodity risks that electric distribution companies do not
209 face.

210 **Sample Selection**

211 **Q. How did you select an electric sample?**

212 A. Since this proceeding will set rates for electric delivery services, under ideal
213 circumstances the sample should reflect the risks associated with the provision of
214 those services. Unfortunately, few, if any, market-traded electric utilities in the
215 United States provide only electric delivery services. Therefore, I selected an
216 electric sample based on the following criteria. First, I began with a list of all
217 domestic publicly traded companies assigned an industry number of 4911 or 4931
218 (i.e., electric utilities) within *S&P Utility Compustat*. Second, I removed any
219 company which derived less than 75% of its revenue from electric services, based
220 on 2000 data. Third, I removed any company that had an S&P debt rating other
221 than A, A-, or BBB+. Fourth, I removed any company which had neither Zacks
222 Investment Research ("Zacks") nor Institutional Brokers Estimate System ("IBES")
223 long-term growth rates. Fifth, I removed companies involved in pending significant
224 mergers or acquisitions. Sixth, I removed companies without Value Line beta
225 estimates. The remaining companies, American Electric Power; CLECO Corp.;

¹⁴ ComEd Exhibit 8.0, Direct Testimony of Daniel E. Thone, p. 7.

226 DPL Inc.; DQE Inc.; Kansas City Power & Light; NSTAR; and Puget Energy Inc.,
227 compose my Electric sample.

228 **Q. How did you select a gas sample?**

229 A. First, I began with a list of all domestic publicly traded companies assigned an
230 industry number of 4924 within *S&P Utility Compustat*. Second, I removed any
231 company which derived less than 75% of its revenue from gas services, based on
232 2000 data. Third, I removed any company that had an S&P debt rating outside the
233 range of A+ through BBB. Fourth, I removed any company which had neither
234 Zacks nor IBES long-term growth rates. Fifth, I removed companies involved in
235 pending significant mergers or acquisitions. Finally, I removed Southern Union
236 because it does not pay dividends. The remaining companies, AGL Resources
237 Inc.; Atmos Energy Corp.; Cascade Natural Gas Corp.; NUI Corp.; Northwest
238 Natural Gas Co; Peoples Energy Corp.; Piedmont Natural Gas Co.; and South
239 Jersey Industries, compose my Gas sample.

240 **Q. Please discuss the criteria by which you selected your samples.**

241 A. The percentage of revenues from electric or gas sales is an operating risk
242 measure. The S&P credit ratings measure the risk that a company will default on
243 financial obligations, which is a function of both operating and financial risk.¹⁵ By

¹⁵ Standard & Poor's, *Utilities Rating Service: Financial Statistics, Twelve Months Ended June 30, 1998*, p. 1; Standard & Poor's, *Utilities Rating Service: Industry Commentary*, May 20, 1996, p. 1.

244 limiting the sample to companies with a high percentage of revenue from electric
245 or gas sales and S&P credit ratings similar to that of ComEd, the sample should
246 approach the risk of the electric delivery services operations of ComEd. In
247 addition, removing companies that have pending significant mergers ensures that
248 merger premiums do not distort the results of my analysis.

249 **Q. In past rate cases Staff has utilized a general utility sample selected on the**
250 **basis of a quantitative comparison in risk to the utility. Did you include**
251 **such a sample in your analysis?**

252 **A.** No. A quantitative analysis of risk using Staff's comparable sample methodology
253 is not practicable for two reasons. First, recent industry restructuring has rendered
254 questionable the measurement of financial and operating risk with historical data
255 for many electric utilities. Second, although ComEd has restructured as a
256 transmission and distribution company, it has only operated on that basis since
257 January 2001, while the comparable sample database does not yet include 2001
258 data. Thus, the available data would reflect integrated electric operations for
259 ComEd rather than the delivery services portion for which rates are being set.

260 **DCF Analysis**

261 **Q. Please describe DCF analysis.**

262 A. For a utility to attract common equity capital, it must provide a rate of return on
263 common equity sufficient to meet investor requirements. DCF analysis
264 establishes a rate of return directly from investor requirements. A comprehensive
265 analysis of a utility's operating and financial risks becomes unnecessary to
266 implement a DCF analysis since the market price of a utility's stock already
267 embodies the market consensus of those risks.

268 According to DCF theory, a security price equals the present value of the cash flow
269 investors expect it to generate. Specifically, the market value of common stock
270 equals the cumulative value of the expected stream of future dividends after each
271 is discounted by the investor-required rate of return.

272 **Q. Please describe the DCF model with which you measured the investor-**
273 **required rate of return on common equity.**

274 A. As it applies to common stocks, DCF analysis is generally employed to determine
275 appropriate stock prices given a specified discount rate. Since a DCF model
276 incorporates time-sensitive valuation factors, it must correctly reflect the timing of
277 the dividend payments that stock prices embody. As such, incorporating stock
278 prices that the financial market sets on the basis of quarterly dividend payments
279 into a model that ignores the time value of quarterly cash flows constitutes a
280 misapplication of DCF analysis.

281 The companies in both samples pay dividends quarterly; therefore, I applied a
282 constant-growth DCF model that measures the annual required rate of return on
283 common equity as follows:

284
$$k = \frac{\sum_{q=1}^4 D_{0,q} (1+g)(1+k)^{-(x+0.25(q-1))}}{P} + g.$$

where P \equiv the current stock price;
 $D_{0,q}$ \equiv the last dividend paid at the end of quarter q ,
where $q = 1$ to 4 ;
 k \equiv the cost of common equity;
 x \equiv the elapsed time between the stock observation
and first dividend payment dates, in years; and
 g \equiv the expected dividend growth rate.

285 That model assumes dividends will grow at a constant rate, and the market value
286 of common stock (i.e., stock price) equals the sum of the discounted value of each
287 dividend.

288 **Q. How did you estimate the growth rate parameter?**

289 **A.** Determining the market-required rate of return with the DCF methodology requires
290 a growth rate that reflects the expectations of investors. Although the current
291 market price reflects aggregate investor expectations, market-consensus
292 expected growth rates cannot be measured directly. Therefore, I measured
293 market-consensus expected growth indirectly with growth rates forecasted by
294 securities analysts that are disseminated to investors.

295 IBES and Zacks summarize and publish the earnings growth expectations of
296 financial analysts that the research departments of investment brokerage firms
297 employ. To measure market-consensus expected growth, I averaged the IBES
298 and Zacks growth rate estimates. Schedule 5.3 presents the analyst growth rate
299 estimates for the companies in the samples.

300 **Q. Why did you not use July estimates growth rates?**

301 A. At the time of my analysis, IBES growth rates as of June 14, 2001, were the most
302 recently available. I have not yet received the July IBES report. When the data
303 becomes available, I will update my analysis to reflect the more recent growth rate
304 estimates.

305 **Q. How did you measure the stock price?**

306 A. A current stock price reflects all information that is available and relevant to the
307 market; thus, it represents the market's assessment of the common stock's current
308 value. I measured each company's current stock price with its closing market
309 price from August 10, 2001. Those stock prices appear on Schedule 5.4.

310 Since current stock prices reflect the market's current expectation of the cash flows
311 the securities will produce and the rate at which those cash flows are discounted,
312 an observed change in the market price does not necessarily indicate a change in
313 the required rate of return on common equity. Rather, a price change may reflect

314 investors' re-evaluation of the expected dividend growth rate. In addition, stock
315 prices change with the approach of dividend payment dates. Consequently, when
316 estimating the required return on common equity with the DCF model, one should
317 measure the expected dividend yield and the corresponding expected growth rate
318 concurrently. Using an historical stock price along with current growth
319 expectations or combining an updated stock price with past growth expectations
320 would likely produce an inaccurate estimate of the market-required rate of return
321 on common equity.

322 **Q. Please explain the significance of the column titled "Next Dividend**
323 **Payment Date" shown on Schedule 5.4.**

324 **A.** Estimating year-end dividend values requires measuring the length of time
325 between each dividend payment date and the first anniversary of the stock
326 observation date. For the first dividend payment, that length of time is measured
327 from the "Next Dividend Payment Date." Subsequent dividend payments occur in
328 quarterly intervals.

329 **Q. How did you estimate the next four expected quarterly dividends?**

330 **A.** Most utilities declare and pay the same dividend per share for four consecutive
331 quarters before adjusting the rate. Consequently, I assumed the dividend rate will
332 adjust during the same quarter it changed during the preceding year. If the utility

333 did not change its dividend during the last year, I assumed the rate would change
334 during the next quarter. The average expected growth rate was applied to the
335 current dividend rate to estimate the expected dividend rate. Schedule 5.4
336 presents the current quarterly dividends. Schedule 5.5 presents the expected
337 quarterly dividends.

338 **Q. Based on your DCF analysis, what are the estimated required rates of**
339 **return on common equity for the electric sample and the gas sample?**

340 A. The DCF analysis estimated required rates of return on common equity estimates
341 of 13.37% for the Electric sample and 11.90% for the Gas sample, as shown on
342 Schedule 5.6. Those results represent averages of the DCF estimates for the
343 individual companies in each sample, which are derived from the growth rates
344 presented on Schedule 5.3, the stock price and dividend payment dates
345 presented on Schedule 5.4, and the expected quarterly dividends presented on
346 Schedule 5.5.

347 **Risk Premium Analysis**

348 **Q. Please describe the risk premium model.**

349 A. The risk premium model is based on the theory that the market-required rate of
350 return for a given security equals the risk-free rate of return plus a risk premium
351 associated with that security. A risk premium represents the additional return

investors expect in exchange for assuming the risk inherent in an investment.

Mathematically, a risk premium equals the difference between the expected rate of return on a risk factor and the risk-free rate. If the risk of a security is measured relative to a portfolio, then multiplying that relative measure of risk and the portfolio's risk premium produces a security-specific risk premium for that risk factor.

The risk premium methodology is consistent with the theory that investors are risk-averse. That is, investors require higher returns to accept greater exposure to risk. Thus, if investors had an opportunity to purchase one of two securities with equal expected returns, they would purchase the security with less risk. Conversely, if investors had an opportunity to purchase one of two securities with equal risk, they would purchase the security with the higher expected return. In equilibrium, two securities with equal quantities of risk have equal required rates of return.

The Capital Asset Pricing Model ("CAPM") is a one-factor risk premium model that mathematically depicts the relationship between risk and return as:

$$R_j = R_f + \beta_j \times (R_m - R_f)$$

where R_j = the required rate of return for security j ;

R_f = the risk-free rate;

R_m = the expected rate of return for the market portfolio; and

β_j = the measure of market risk for security j .

368 In the CAPM, the risk factor is market risk which is defined as risk that cannot be
369 eliminated through portfolio diversification. To implement the CAPM, one must
370 estimate the risk-free rate of return, the expected rate of return on the market
371 portfolio, and a security or portfolio-specific measure of market risk.

372 **Q. How did you estimate the risk-free rate of return?**

373 A. I examined the suitability of the yields on three-month U.S. Treasury bills and thirty-
374 year U.S. Treasury bonds as estimates of the risk-free rate of return.

375 **Q. Why did you examine the yields on U.S. Treasury bills and bonds as**
376 **measures of the risk-free rate?**

377 A. The proxy for the nominal risk-free rate should contain no risk premium and reflect
378 similar inflation and real risk-free rate expectations to the security being analyzed
379 through the risk premium methodology.¹⁶ The yields of fixed income securities
380 include premiums for default and interest rate risk. Default risk pertains to the
381 possibility of default on principal or interest payments. Securities of the United
382 States Treasury are virtually free of default risk by virtue of the federal
383 government's fiscal and monetary authority. Interest rate risk pertains to the effect
384 of unexpected interest rate fluctuations on the value of securities.

¹⁶ Real risk-free rate and inflation expectations comprise the non-risk portion of a security's rate of return.

385 Since common equity theoretically has an infinite life, its market-required rate of
386 return reflects the inflation and real risk-free rates anticipated to prevail over the
387 long run. U.S. Treasury bonds, the longest term treasury securities, are issued
388 with terms to maturity of thirty years; U.S. Treasury notes are issued with terms to
389 maturity ranging from two to ten years; U.S. Treasury bills are issued with terms to
390 maturity ranging from ninety-one days to one year. Therefore, U.S. Treasury bonds
391 are more likely to incorporate within their yields the inflation and real risk-free rate
392 expectations that drive, in part, the prices of common stocks than either U.S.
393 Treasury notes or Treasury bills.

394 However, due to relatively long terms to maturity, U.S. Treasury bond yields also
395 contain an interest rate risk premium that diminishes their usefulness as measures
396 of the risk-free rate. U.S. Treasury bill yields contain a smaller premium for interest
397 rate risk. Thus, in terms of interest rate risk, U.S. Treasury bill yields more
398 accurately measure the risk-free rate.

399 **Q. Given that the inflation and real risk-free rate expectations reflected in the**
400 **yields on U.S. Treasury bonds and the prices of common stocks are**
401 **similar, does it necessarily follow that the inflation and real risk-free rate**
402 **expectations that are reflected in the yields on U.S. Treasury bills and the**
403 **prices of common stocks are dissimilar?**

404 A. No. To the contrary, short and long-term inflation and real risk-free rate
405 expectations, including those that are reflected in the yields on U.S. Treasury bills,
406 U.S. Treasury bonds, and the prices of common stocks, should equal over time.
407 Any other assumption implausibly implies that the real risk-free rate and inflation is
408 expected to systematically and continuously rise or fall.

409 Although expectations for short and long-term real risk-free rates and inflation
410 should equal over time, in finite time periods, short and long-term expectations
411 may differ. Short-term interest rates tend to be more volatile than long-term
412 interest rates.¹⁷ Consequently, over time U.S. Treasury bill yields are less biased
413 (i.e., more accurate) but less reliable (i.e., more volatile) estimators of the long-
414 term risk-free rate than U.S. Treasury bond yields. In comparison, U.S. Treasury
415 bond yields are more biased (i.e., less accurate) but more reliable (i.e., less
416 volatile) estimators of the long-term risk-free rate. Therefore, an estimator of the
417 long-term nominal risk-free rate should not be chosen mechanistically. Rather, the
418 similarity in current short and long-term nominal risk-free rates should be
419 evaluated. If those risk-free rates are similar, then U.S. Treasury bill yields should
420 be used to measure the long-term nominal risk-free rate. If not, some other proxy
421 or combination of proxies should be used.

422 Q. What are the current yields on three-month U.S. Treasury bills and thirty-
423 year U.S. Treasury bonds?

424 A. Three-month U.S. Treasury bills are currently yielding 3.36%. Thirty-year U.S.
425 Treasury bonds are currently yielding 5.60%. Both estimates are derived from
426 quotes for August 10, 2001.¹⁸ Schedule 5.7 presents the published quotes and
427 effective yields.

428 **Q. Of the U.S. Treasury bill and bond yields, which is currently a better proxy**
429 **for the long-term risk-free rate?**

430 A. In terms of the gross domestic product ("GDP") price index, WEFA forecasts the
431 inflation rate will average 1.8% annually during the 2001-2020 period.¹⁹ In terms of
432 the consumer price index ("CPI"), the *Survey of Professional Forecasters*
433 ("Survey") forecasts the inflation rate will average 2.6% during the next ten years.²⁰
434 In terms of real GDP growth, WEFA forecasts the real risk-free rate will average
435 3.1% during the 2001-2020 period.²¹ The Survey forecasts real GDP growth will
436 average 3.3% during the next ten years.^{22, 23} Those forecasts imply a long-term,

¹⁷ Fabozzi and Pollack, ed., *The Handbook of Fixed Income Securities*, Fourth Edition, Irwin, p. 789.

¹⁸ The Federal Reserve Board, *Federal Reserve Statistical Release: Selected Interest Rates, H.15 Daily Update*, <http://www.federalreserve.gov/releases/H15/update/>, August 13, 2001.

¹⁹ *U.S. Long-Term Economic Outlook*, vol. 1, WEFA Group, First Quarter 2001, pp. 4.4-4.5.

²⁰ *Survey of Professional Forecasters*, Federal Reserve Bank of Philadelphia, www.phil.frb.org/files/spf/survq101.html, May 21, 2001. The Survey aggregates the forecasts of approximately thirty forecasters.

²¹ *U.S. Long-Term Economic Outlook*, vol. 1, WEFA Group, First Quarter 2001, pp. 4.2-4.3.

²² *Survey of Professional Forecasters*, Federal Reserve Bank of Philadelphia, www.phil.frb.org/files/spf/survq101.html, February 20, 2001.

²³ Historically, the realized interest rate return premium averaged 1.4% during the last 75 years (Ibbotson Associates, *Stocks, Bonds, Bills, and Inflation, 2001 Yearbook*, p. 174).

nominal risk-free rate between 5.0% and 6.0%.²⁴ Therefore, WEFA and Survey forecasts of inflation and real GDP growth expectations indicate that the U.S. Treasury bond yield more closely approximates the long-term risk-free rate at this time. It should be noted, however, that the estimate from using the U.S. Treasury bond yield contains an upward bias due to the inclusion of an interest rate risk premium associated with its relatively long term to maturity.

Q. Please explain why the real risk-free rate and the GDP growth rate should be similar.

A. Risk-free securities provide a rate of return sufficient to compensate investors for the time value of money, which is a function of production opportunities, time preferences for consumption, and inflation.²⁵ The real risk-free rate does not include premiums for inflation; therefore, only production opportunities and consumption preferences affect it. The real GDP growth rate measures output of goods and services excluding inflation and, as such, also reflects both production and consumers' consumption preferences. Therefore, both the real GDP growth rate and the real risk-free rate of return should be similar since both are a function

²⁴ Nominal interest rates are calculated as follows:

$$r = (1 + R) \times (1 + i) - 1.$$

where r \equiv nominal interest rate;
 R \equiv real interest rate; and
 i \equiv inflation rate.

²⁵ Brigham and Houston, Fundamentals of Financial Management, 8th edition.

453 of production opportunities and consumption preferences without the effects of a
454 risk premium or an inflation premium.

455 **Q. How was the expected rate of return on the market portfolio estimated?**

456 A. The expected rate of return on the market was estimated by conducting a DCF
457 analysis on the firms composing the S&P 500 Index ("S&P 500"). That analysis
458 used dividends and closing market prices as of June 28, 2001 as reported in the
459 July 2001 edition of *S&P Security Owner's Stock Guide*. Growth rate estimates
460 were obtained from the June 2001 edition of *IBES Monthly Summary Data* and
461 July 2 and August 1, 2001 Zacks reports. Firms not paying a dividend as of June
462 28, 2001, or for which neither IBES nor Zacks growth rates were available were
463 eliminated from the analysis. The resulting company-specific estimates of the
464 expected rate of return on common equity were then weighted using market value
465 data from Salomon Smith Barney, *Performance and Weights of the S&P 500:*
466 *Second Quarter 2001*. The estimated weighted average expected rate of return
467 for the remaining 365 firms, composing 78.31% of the market capitalization of the
468 S&P 500, equals 15.31%.

469 **Q. How did you measure market risk on a security-specific basis?**

470 A. Beta measures risk in a portfolio context. When multiplied by the market risk
471 premium, a security's beta produces a market risk premium specific to that

472 security. I used Value Line's beta estimates for the companies in my samples.
473 The Value Line beta for a security is estimated with the following model using an
474 ordinary least-squares technique.²⁶

$$R_{j,t} = a_j + \beta_j \times R_{m,t} + e_{j,t}$$

where $R_{j,t}$ \equiv the return on security j in period t ;

$R_{m,t}$ \equiv the return on the market portfolio in period t ;

a_j \equiv the intercept term for security j ;

β_j \equiv beta, the measure of market risk for security j ; and

$e_{j,t}$ \equiv the residual term in period t for security j .

476 A beta can be calculated for firms with market-traded common stock. Value Line
477 calculates its betas in two steps. First, the returns of each company are regressed
478 against the returns of the New York Stock Exchange Composite Index to estimate
479 a raw beta. The regression analysis employs 260 weekly observations of stock
480 return data. Then, an adjusted beta is estimated through the following equation:

$$\beta_{adjusted} = 0.35 + 0.67 \times \beta_{raw}.$$

482 From the individual betas of the companies in each sample a single average beta
483 was computed for each sample to be input into the CAPM.

484 **Q. In past rate cases Staff has calculated its own estimates of beta. Why did**
485 **you elect to use the Value Line adjusted beta estimates?**

²⁶ Statman, Meir, "Betas Compared: Merrill Lynch vs. Value Line", *The Journal of Portfolio*

486 A. The price returns of the S&P 500, which is the market proxy in the methodology
487 Staff traditionally uses, were uncorrelated with utility price returns over the last five
488 years, which implies utility raw betas equal zero. This is an implausible result.
489 Therefore, I used the Value Line adjusted beta estimates.

490 Q. **Why do you use an adjusted beta estimate?**

491 A. I use an adjusted beta estimate for two reasons. First, betas tend to regress
492 towards the market mean value of 1.0 over time; therefore, the adjustment
493 represents an attempt to estimate a forward-looking beta. Second, empirical tests
494 of the CAPM suggest that the linear relationship between risk, as measured by
495 raw beta, and return is flatter than the CAPM predicts. That is, securities with raw
496 betas less than one tend to realize higher returns than the CAPM predicts.
497 Conversely, securities with raw betas greater than one tend to realize lower returns
498 than the CAPM predicts. Adjusting the raw beta estimate towards the market
499 mean value of 1.0 compensates for the observed flatness in the linear relationship
500 between risk and return.²⁷ Securities with betas less than one are adjusted
501 upwards thereby increasing the predicted required rate of return towards observed
502 realized rates of return. Conversely, securities with betas greater than one are
503 adjusted downwards thereby decreasing the predicted required rate of return
504 towards observed realized rates of return.

Management, Winter 1981.

²⁷ Litzenberger, Ramaswamy and Sosin, "On the CAPM Approach to the Estimation of A Public Utility's Cost of Equity Capital," *Journal of Finance*, May 1980, pp. 375-376.

505 **Q. What are the beta estimates for the electric sample and the gas sample?**

506 A. The average Value Line adjusted beta for the Electric sample equals 0.54. The
507 average Value Line adjusted beta for the Gas sample equals 0.56.

508 **Q. What required rate of return on common equity does the risk premium**
509 **model estimate for the two samples?**

510 A. The risk premium model estimates a required rate of return on common equity of
511 10.94% for the Electric sample and 11.06% for the Gas sample. The computation
512 of those estimates appears on Schedule 5.7.

513 **Cost of Equity Recommendation**

514 **Q. Based on your entire analysis, what is your estimate of the required rate of**
515 **return on the common equity for ComEd?**

516 A. A thorough analysis of the required rate of return on common equity requires both
517 the application of financial models and the analyst's informed judgment. An
518 estimate of the required rate of return on common equity based solely on judgment
519 is inappropriate. Nevertheless, because techniques to measure the required rate
520 of return on common equity necessarily employ proxies for investor expectations,
521 judgment remains necessary to evaluate the results of such analyses. Along with
522 DCF and risk premium analyses, I have considered the observable 7.00% rate of

523 return the market currently requires on less risky A-rated corporate long-term
524 debt.²⁸ Based on my analysis, in my judgment the investor-required rate of return
525 on common equity for ComEd equals 11.71%.

526 **Q. Please summarize how you determined the 11.71% estimate of the**
527 **investor-required rate of return on common equity for ComEd.**

528 **A.** I considered the results of the DCF-derived and risk premium-derived results for
529 the electric and gas samples. The average investor required rate of return on
530 common equity for the Electric sample, 12.16%, is based on the average of the
531 DCF-derived results (13.37%) and the risk premium-derived results (10.94%).
532 The average investor required rate of return on common equity for the Gas
533 sample, 11.48%, is based on the average of the DCF-derived results (11.90%)
534 and the risk premium-derived results (11.06%). The models from which the
535 individual company estimates were derived are correctly specified and thus
536 contain no source of bias. Moreover, I am unaware of bias in my proxy for investor
537 expectations.²⁹ In addition, measurement error has been minimized through the
538 use of a sample, since estimates for a sample as a whole are subject to less
539 measurement error than individual company estimates.

²⁸ *Standard & Poor's Benchmark Corporate Yields*, Bond Resources,
www.bondresources.com/Corporate/Rates/AAA.

²⁹ Except as discussed above in regard to U.S. Treasury bond yields as proxies for the long-term risk-free rate.

540 **Q. Why did you base your recommended return on common equity on your**
541 **estimates for both samples?**

542 A. Based on S&P Credit ratings and business positions and common equity ratios,
543 as presented on Schedule 5.8, the Electric sample is more risky than ComEd.
544 Therefore, the cost of equity estimates based on the companies that comprise that
545 sample overstate the cost of equity for ComEd. The Gas sample is less risky than
546 ComEd, based on the criteria presented on Schedule 5.8, which results in the cost
547 of equity being slightly understated. However, the average credit rating and
548 business profile³⁰ of the companies in the Gas sample better represent ComEd's
549 electric delivery service operations. Therefore, I took a weighted average of the
550 results for the electric and gas samples. I applied one-third weight to the electric
551 sample average investor-required rate of return on common equity, and two-thirds
552 weight to the gas sample average investor-required rate of return on common
553 equity. My recommended cost of equity for ComEd, 11.71%, is the result of that
554 calculation.

555 **Overall Cost of Capital Recommendation**

556 **Q. What is the overall cost of capital for ComEd?**

³⁰ S&P assigns companies business profiles ranging from 1 to 10 based on business risk, with 1 being the lowest business risk and 10 being the highest. Standard & Poor's, *Utilities & Perspectives*, June 21, 1999.

557 A. As shown on Schedule 5.1, ComEd's overall cost of capital is 8.74%. The
558 recommended estimate incorporates a cost of common equity of 11.71%.

Response to Mr. Thone

559 **Q. Please evaluate Mr. Thone's analyses of ComEd's cost of common equity.**

560 A. The leverage adjustments that Mr. Thone made to his estimates of the cost of
561 common equity for the electric and gas samples are seriously flawed and do not
562 accurately reflect the effect of leverage on the cost of equity. In addition, the
563 comparable earnings estimates that Mr. Thone provides are not appropriate
564 proxies for the investor-required rate of return on ComEd's common equity.³¹

565 **Leverage Adjustment**

566 **Q. Please describe the leverage adjustments that Mr. Thone made to the cost**
567 **of equity estimates for his samples.**

568 A. Mr. Thone used the Miller model to adjust his DCF estimates and the Hamada
569 model to adjust his CAPM estimates. The Miller model is a method for measuring
570 the effect on the cost of common equity due to changes in leverage in the capital
571 structure based on the classic theory developed by Modigliani and Miller. The
572 Miller model equation is as follows:

³¹ ComEd Ex. 8.0, Direct Testimony of Daniel E. Thone.

573
$$k_{sL} = k_{sU} + (k_{sU} - k_D)(1 - T)(D/S)$$

Where:

- k_{sL} \equiv the cost of equity for a levered firm;
- k_{sU} \equiv the cost of equity for an unlevered firm;
- k_D \equiv the cost of debt;
- T \equiv the corporate tax rate
- D \equiv the market value of debt; and
- S \equiv the market value of equity.³²

574 After he calculated initial DCF estimates for each of the companies in his samples
575 using the quarterly DCF model (that has been consistently adopted by the
576 Commission), Mr. Thone used the Miller model to calculate the equivalent return
577 for unlevered companies for his samples. He then re-levered the returns using
578 ComEd's proposed capital structure.³³

579 The Hamada model modifies the beta component of the CAPM model to account
580 for the effect of a company's financial leverage on its risk. Similarly to his Miller
581 model adjustment, Mr. Thone removed the effect of financial leverage from his
582 sample companies' betas using market-value capital structures to obtain an
583 unlevered beta and then re-levered it using the proposed capital structure of
584 ComEd. Mr. Thone then used the re-levered betas for his sample companies
585 when estimating the cost of equity with the CAPM methodology.³⁴ The Hamada

³² Brigham, Eugene F., et. al., Financial Management: Theory and Practice, pp. 622-632.

³³ ComEd Ex. 8.0, Direct Testimony of Daniel E. Thone, pp. 10-12.

³⁴ *ibid.*

model equation can be expressed as follows: the cost of equity to an unlevered firm is equal to the risk-free rate plus a business risk premium plus a financial risk premium, or:

$$k_{SL} = k_{RF} + (k_M - k_{RF})b_U + (k_M - k_{RF})b_U(1-T)(D/S)$$

Where:

- k_{SL} \equiv the cost of equity for a levered firm;
- k_{RF} \equiv the risk-free rate;
- k_M \equiv the rate of return for the market portfolio;
- b_U \equiv the unlevered beta;
- T \equiv the corporate tax rate;
- D \equiv market value of debt; and
- S \equiv market value of equity.

Q. Please define the term financial leverage.

A. Financial leverage is the amount of fixed financial obligations in relation to equity in a firm's capital structure. The greater the proportion of fixed financial obligations, the greater the financial leverage.

Q. Do the leverage adjustments as implemented by Mr. Thone accurately reflect the effect of financial leverage on the cost of equity?

A. Mr. Thone 's leverage adjustments do not accurately reflect the effect on the cost of equity from differing degrees of financial leverage. The models that Mr. Thone

used to adjust the cost of equity estimates for his sample companies measure leverage too simplistically to accurately estimate the effect of leverage on the capital structure. Moreover, Mr. Thone implemented those models using inconsistent capital structure data in a manner that exaggerated the differences in ComEd's financial leverage in comparison to his sample companies.

The models fail to reflect the significance a company's cost of debt has on financial leverage. One of the narrow assumptions of the model is that all companies with the same capital structure have the same cost of debt and are able to borrow at the risk-free rate, which is simply not true. The higher the cost of debt, the higher the companies' interest payment obligations, and therefore the more levered the company. This relationship is illustrated in the following example, which assumes that Firm A (1) pays a 40% corporate tax rate; (2) has a capital structure consisting of 60% debt and 40% equity; (3) has a cost of debt of 6%; and (4) has an unlevered cost of equity of 10%. According to the Miller model, Firm A's levered cost of equity is 13.6%, calculated as follows:

$$k_{sl} = 10\% + (10\% - 6\%)(1-0.40)(60/40) = 13.6\%.$$

Now assume that all of the aforementioned assumptions apply to Firm B as well, with the exception of the cost of debt. Firm B's cost of debt is 8%. According to the Miller model, Firm B's levered cost of equity is 11.8%, calculated as follows:

$$k_{sl} = 10\% + (10\% - 8\%)(1-0.40)(60/40) = 11.8\%.$$

618 The above example illustrates that increasing the cost of debt results in a
619 decreased cost of equity estimate. Financial theory suggests that increasing the
620 cost of debt would increase the amount of financial leverage to which a firm is
621 exposed. More of the firm's financial resources must be dedicated to making
622 interest payments. Therefore, fewer funds are available to provide a return to
623 equity investors, *creating more risk to the equity investor, who will demand a*
624 higher return. The Miller model exhibits the opposite effect, which is illogical.
625 Hence, the Miller model does not accurately reflect the effects of increasing
626 leverage on a firm's capital structure.

627 **Q. Did Mr. Thone implement the leverage adjustments through the Miller and**
628 **Hamada models properly?**

629 A. No. Mr. Thone used the market value capital structures of the sample companies
630 to unlever the cost of equity estimates. When re-levering, Mr. Thone used
631 ComEd's proposed book value capital structure. Essentially, Mr. Thone adjusted
632 his market-based DCF and CAPM models for application to book value, which
633 has both theoretical and empirical flaws. These adjustments are based on the
634 incorrect notion that utilities should be authorized rates of return on common equity
635 in excess of the investor-required return whenever their market values exceed
636 book values, a false notion that the Commission has previously rejected.³⁵

³⁵ Amended Order, Docket No. 97-0351, p. 42; Order, Docket No. 99-0121, p. 68.

637 Moreover, Mr. Thone's mix of market and book values erroneously implies that
638 financial risk depends on the units of measure. The balance of common equity can
639 be measured in terms of market value or book value. However, the amount of
640 financial leverage is not altered depending on which unit of measurement is used.
641 The intrinsic risk level of a given company does not change simply because the
642 manner in which it is being measured has changed. Capital structure ratios are
643 merely indicators of financial risk, they are not sources of financial risk. Financial
644 risk arises from contractually required debt service payments. Changing capital
645 structure ratios from a market to book value basis does not affect a company's
646 debt service requirements. Therefore, adjustments based on mere differences in
647 the units of measurement are inappropriate.

648 **Q. How does the book value capital structure that you are proposing for**
649 **ComEd compare to the book value capital structures of the companies in**
650 **Mr. Thone's samples?**

651 **A.** Using data from *S&P Utility Compustat* for the four quarters of the year 2000, I
652 computed the average book value capital structures for the companies in Mr.
653 Thone's samples. The average total debt to equity ratio for the companies in Mr.
654 Thone's electric sample equals 1.64, while the average total debt to equity ratio for
655 the companies in his gas sample equals 1.30. ComEd's total debt to equity ratio,
656 using my proposed capital structure of 61% debt and 39% equity equals 1.54.
657 Further, the average common equity to total capitalization equals 38.08% for the

658 electric sample and 43.93% for the gas sample. The average total debt to
659 capitalization equals 60.08% for the electric sample and 55.44% for the gas
660 sample. Based on book value, Mr. Thone's samples are not significantly different
661 from ComEd in terms of leverage.

662 **Q. Is it proper to use book value or market value when implementing the**
663 **models to adjust for differences in leverage?**

664 **A.** Market value should be used when implementing the Miller and Hamada models.
665 Because ComEd's common stock is not market traded, its market value of
666 common equity is unobservable. I estimated ComEd's market value of common
667 equity using the average market to book ratios for Mr. Thone's sample
668 companies.³⁶ The average 2000 market to book value for his electric sample
669 equals 1.97, while that of his gas sample is 2.01. I then compared the debt to
670 market equity ratios of the samples to the implied debt to market equity ratios for
671 ComEd. For the electric sample, the debt to market equity ratio equals 0.86, and
672 the implied debt to market equity ratio of ComEd is 0.78. For the gas sample, the
673 debt to market equity ratio equals 0.61, and the implied debt to market equity ratio
674 of ComEd is 0.77.

675 **Q. What did you conclude from your comparisons of book value to book**
676 **value and market value to market value?**

677 A. I concluded that when financial leverage is compared with similar units, the
678 difference in leverage financial and capital structure between the electric and gas
679 samples is not nearly as great as Mr. Thone's analysis that mixes book and
680 market values indicates. Mr. Thone's implementation of the models greatly
681 exaggerated the difference in financial leverage between ComEd and his
682 samples.

683 Q. How does Mr. Thone treat the TFNs when executing the leverage
684 adjustments?

685 A. Mr. Thone included the TFNs in the capital structure of ComEd and treated them
686 as regular debt.

687 Q. Is Mr. Thone's treatment of the TFNs as regular debt proper?

688 A. No, not according to ComEd in Docket No. 98-0319. ComEd claimed that the
689 TFNs have terms that differentiate them from traditional long-term debt issues.
690 ComEd argued that unlike bank debt, payments of principal on the TFNs may be
691 deferred and that the TFNs do not encumber any physical assets of ComEd, unlike
692 mortgage bonds.³⁶ ComEd asserted that the issuance of the TFNs and the use of
693 the proceeds would reduce the riskiness of ComEd's equity and reduce its overall

³⁶ ComEd Response to Staff Data Request FIN-6, Schedule WPFIN-6.1.

³⁷ Docket No. 98-0319, ComEd Ex. 8.0, Rebuttal Testimony of William A. Abrams, p. 5.

694 cost of capital. ComEd claimed that the TFNs would be less of a burden than
695 debt.³⁸

696 ComEd also argued that cost of capital models, such as the Miller and Hamada
697 models, do not lead to meaningful estimates of the impact of the transitional
698 financing on the long-term cost of capital.³⁹ Thus, ComEd's arguments in Docket
699 No. 98-0319 indicate that treating TFNs like regular debt causes the models to
700 overstate the effect of financial leverage from TFNs on the cost of equity.

701 **Q. Has the Commission ever rejected use of the Miller model or the Hamada**
702 **model to adjust a utility's cost of equity for the effects of financial**
703 **leverage?**

704 **A.** Yes. In Docket No. 99-0120/99-0134 Consol., the Commission concluded "that
705 while the Hamada model may be useful for measuring the relative cost of capital
706 over a range of capital structures, it may not be appropriate for estimating a
707 specific cost of capital for ratemaking purposes."

708 In Docket 98-0319, ComEd's securitization case, and Docket 98-0448, Illinois
709 Power Company's ("IP") securitization case, the Miller model and the Hamada
710 equation were used to measure the relative cost of capital over a range of capital
711 structures. The use of those models has only been approved by the Commission
712 to examine the effects on equity return when capital structure changes occur.

³⁸ Order, Docket No. 98-0319, July 21, 1998, p. 22.

713 These leverage adjustments are not suitable for estimating a particular cost of
714 equity.

715 **Comparable Earnings**

716 **Q. Please describe Mr. Thone's comparable earnings analysis of the cost of**
717 **equity for ComEd.**

718 A. Mr. Thone used *Value Line* estimates of return on equity for the years 2003
719 through 2005 for the companies in his samples to estimate ComEd's cost of
720 equity. He claims that investors use future estimates provided by *Value Line* in
721 setting their return expectations.

722 **Q. Is it appropriate to rely on Value Line return on equity estimates to**
723 **determine the investor required return on equity for ComEd?**

724 A. No. The expected returns on book value are not appropriate estimates for
725 required returns. The cost of common equity is the market-required rate
726 demanded by investors. In contrast, comparable earnings analysis is not a
727 market-based methodology. The comparable earnings method incorrectly implies
728 that the rate of return on book common equity is equivalent to current investor-
729 required rates of return. There is simply no basis for that implication since the
730 accounting return that the comparable earnings method measures may be more or

³⁹ Docket 98-0319, ComEd Ex. 7.0, Rebuttal Testimony of Willard T. Carleton, p. 4

731 less than the return investors require for an investment. For example, if the
732 expected return on a company's market equity is 20% while the investor required
733 rate or return is only 10%, investors will bid up the price in the marketplace until the
734 expected return on market equity equals the required 10% return. The market
735 price of a common stock does not achieve equilibrium until the expected rate of
736 return on the common stock equals the investor-required rate of return. In contrast,
737 the return on book value has no such adjustment mechanism since the
738 denominator, book value, is immune to market forces.

739 **Q. Has the Commission rejected use of the comparable earnings analysis to**
740 **measure a utility's cost of equity?**

741 **A.** Yes. The Commission rejected use of the comparable earnings methodology in
742 Docket Nos. 99-0121, 89-0033, and 92-0448/93-0239 Consol.⁴⁰

Response to Dr. Peltzman and Dr. Culp

743 **Q. Please summarize the testimonies of Dr. Peltzman and Dr. Culp regarding**
744 **the risk of electric utilities?**

745 **A.** Dr. Peltzman and Dr. Culp claim that the electric utility industry in Illinois is
746 becoming more risky due to the reduction in regulation from the restructuring of

⁴⁰ Order, Docket 99-0121, August 25, 1999, p. 68; Order on Remand, Docket No. 89-0033, November 4, 1991, p.15; Order, Docket No. 92-0448/93-0239 Consol., October 11, 1994, p. 173.

747 electricity. They claim that restructuring creates risks from price arbitrage and
748 classic externalities and will increase the impact of demand fluctuations on the
749 variability of ComEd's cash flow.⁴¹ Dr. Peltzman testified that the risks from
750 increased price volatility that ComEd will bear in the future will be priced into
751 ComEd's equity today. One of the risks of the power supply business concerns
752 the ability of suppliers to eliminate price risks arising from differences in the price
753 paid to purchase power from generators and the price at which that power can be
754 sold to customers. Dr. Culp testified that as provider of last resort, ComEd's
755 investors will require compensation for bearing additional risks in excess of that
756 estimated via pure systematic risk-based cost of capital methods.

757 **Q. Do you agree with Dr. Pelzman and Dr. Culp's assessment of the risk**
758 **posed to ComEd due to the restructuring of electricity markets in Illinois?**

759 **A.** No. The restructuring of the industry has eliminated the risks associated with
760 owning and operating generation that was previously borne by integrated electric
761 utilities. The transmission and distribution business that ComEd retained is
762 certainly not risk-free, but neither is it as risky as the generation assets ComEd
763 shed.

764 In October of 2000, Standard & Poor's ("S&P") raised ComEd's corporate credit
765 rating from BBB+ to A- and assigned its A- corporate credit rating and stable

⁴¹ ComEd Ex. 9.0, Direct Testimony of Prof. Sam Peltzman; ComEd Ex. 10.0, Direct Testimony of Christopher Lee Culp, Ph.D.

766 outlook to Exelon. Simultaneously, ComEd's business position rating went up
767 from 7 to 4.⁴² S&P reported that:

768 Exelon's business profile is a function of the operating risks posed by
769 substantial nuclear asset exposure and a growing emphasis on wholesale
770 power marketing. These features are tempered substantially by supportive
771 restructuring legislation and commission orders in Illinois and Pennsylvania,
772 as well as low-risk electric and gas transmission and distribution
773 operations.⁴³

774 The ratings assigned by S&P reflect ComEd's above average business profile
775 and solid financial measures. A 2001 summary report from S&P stated:

776 ComEd's business profile is supported by its low-risk electric transmission
777 and distribution assets, supportive restructuring legislation and commission
778 orders, the transfer of its nuclear assets to Exelon, the sale of its fossil
779 generating assets to Edison Mission Energy, and a rebounding service
780 territory with a below-average proportion of industrial sales. ComEd
781 benefited significantly from legislation governing competition in the state.
782 ComEd's financial strength is derived from the securitization financing,
783 healthy internal cash generation, and continued cost control efforts."⁴⁴

784 The S&P reports contradict ComEd's claims that, due to restructuring, the risk of
785 ComEd's transmission and distribution business is so great that the cost of equity
786 capital is beyond that which can be established using traditional cost of equity
787 models.

788 **Q. Does this conclude your direct testimony?**

789 **A. Yes.**

⁴² The business position ratings assess the qualitative attributes of a firm, with "1" being considered lowest risk and "10" highest risk.

⁴³ S&P Utilities and Perspectives, 10/23/00, p.6.

⁴⁴ Standard & Poor's Ratings Direct, Summary: Commonwealth Edison Co., 8/6/01.

Commonwealth Edison Company

Weighted Average Cost of Capital

Company Proposal

Pro-forma December 31, 2000

<u>Component</u>	<u>Balance</u>	<u>Percent of Total Capital</u>	<u>Cost</u>	<u>Weighted Cost</u>
Long-term Debt	\$6,963,798,000 ¹	53.99%	7.14%	3.86%
Common Equity	<u>\$5,933,786,000 ²</u>	<u>46.01%</u>	13.25%	<u>6.10%</u>
Total Capital	\$12,897,584,000	100.00%		
Weighted Average Cost of Capital				9.95%

¹ Pro-forma adjustments through December 31, 2002

² Pro-forma adjustments through January 2001

Staff Proposal

March 31, 2001

<u>Component</u>	<u>Balance</u>	<u>Percent of Total Capital</u>	<u>Cost</u>	<u>Weighted Cost</u>
Long-term Debt	\$7,629,187,696	60.64%	6.82%	4.13%
Common Equity	<u>\$4,952,000,000</u>	<u>39.36%</u>	11.71%	<u>4.61%</u>
Total Capital	\$12,581,187,696	100.00%		
Weighted Average Cost of Capital				8.74%

Commonwealth Edison Company

**Embedded Cost of Long-Term Debt
 March 31, 2001**

Description	Coupon Rate	Date Issued	Maturity Date	Face Amount Outstanding	Unamortized Discount or Premium	Unamortized Debt Expense	Carrying Value	Annualized Coupon Interest	Annualized Amortization of Discount or Premium	Annualized Amortization of Debt Expense	Annualized Debt Expense
First Mortgage Bonds											
Series 85	7.375%	09/15/92	09/15/02	\$200,000,000	(\$181,594)	\$12,231	\$200,169,363	\$14,750,000	(\$124,356)	\$8,376	\$14,634,020
Series 96	6.625%	07/15/93	07/15/03	\$100,000,000	\$280,643	\$18,350	\$99,701,007	\$6,625,000	\$122,530	\$8,012	\$6,755,541
Pollution Control-1994A	5.300%	01/15/94	01/15/04	\$26,000,000	\$40,241	\$29,162	\$25,930,597	\$1,378,000	\$14,400	\$10,435	\$1,402,835
Series 93	7.000%	07/01/93	07/01/05	\$225,000,000	\$911,538	\$52,963	\$224,035,499	\$15,750,000	\$214,238	\$12,448	\$15,976,686
Series 76	8.250%	10/01/91	10/01/06	\$100,000,000	(\$1,526,846)	\$43,959	\$101,482,887	\$8,250,000	(\$277,263)	\$7,983	\$7,980,719
Series 78	8.375%	10/15/91	10/15/06	\$125,000,000	(\$2,198,910)	\$51,569	\$127,147,342	\$10,468,750	(\$396,543)	\$9,300	\$10,081,507
Pollution Control-1996A	4.400%	06/27/96	12/01/06	\$110,000,000	\$1,465	\$1,335,748	\$108,662,787	\$4,840,000	\$258	\$235,417	\$5,075,675
Pollution Control-1996B	4.400%	06/27/96	12/01/06	\$89,400,000	\$1,190	\$1,090,483	\$88,308,328	\$3,933,600	\$210	\$192,190	\$4,126,000
Series 83	8.000%	05/15/92	05/15/08	\$140,000,000	(\$1,741,318)	\$77,890	\$141,663,428	\$11,200,000	(\$244,266)	\$10,926	\$10,966,660
Pollution Control-1994B	5.700%	01/15/94	01/15/09	\$20,000,000	\$374,206	\$39,616	\$19,586,178	\$1,140,000	\$47,975	\$5,079	\$1,193,054
Pollution Control-1991	7.250%	06/01/91	06/01/11	\$100,000,000	(\$840,152)	\$171,728	\$100,668,423	\$7,250,000	(\$82,567)	\$16,877	\$7,184,309
Series 92	7.625%	04/15/93	04/15/13	\$220,000,000	\$2,027,568	\$156,191	\$217,816,240	\$16,775,000	\$168,272	\$12,963	\$16,956,235
Series 94	7.500%	07/01/93	07/01/13	\$150,000,000	\$2,401,298	\$67,621	\$147,531,082	\$11,250,000	\$195,860	\$5,515	\$11,451,375
Pollution Control-1994C	5.850%	01/15/94	01/15/14	\$20,000,000	\$1,083,597	\$48,771	\$18,867,633	\$1,170,000	\$84,638	\$3,809	\$1,258,447
Pollution Control-1994D	6.750%	12/01/94	03/01/15	\$91,000,000	\$1,475,597	\$1,708,912	\$87,815,491	\$6,142,500	\$105,960	\$122,714	\$6,371,173
Series 75	9.875%	06/15/90	06/15/20	\$260,000,000	(\$14,865,328)	\$349,234	\$274,516,094	\$25,675,000	(\$773,353)	\$18,169	\$24,919,815
Series 81	8.625%	02/01/92	02/01/22	\$200,000,000	(\$323,411)	\$302,402	\$200,021,010	\$17,250,000	(\$15,508)	\$14,500	\$17,248,993
Series 84	8.500%	07/15/92	07/15/22	\$200,000,000	\$759,736	\$360,012	\$198,880,252	\$17,000,000	\$35,661	\$16,899	\$17,052,560
Series 86	8.375%	09/15/92	09/15/22	\$200,000,000	\$2,149,137	\$190,094	\$197,660,769	\$16,750,000	\$100,081	\$8,852	\$16,858,933
Series 88	8.375%	02/15/93	02/15/23	\$235,950,000	\$2,430,098	\$196,309	\$233,323,593	\$19,760,813	\$110,998	\$8,967	\$19,880,777
Series 91	8.000%	04/15/93	04/15/23	\$160,000,000	\$4,871,608	\$117,434	\$155,010,957	\$12,800,000	\$220,887	\$5,325	\$13,026,211
Series 97	7.750%	07/15/93	07/15/23	\$150,000,000	\$7,019,887	\$79,888	\$142,900,226	\$11,625,000	\$314,735	\$3,582	\$11,943,317
Total First Mortgage Bonds				\$3,122,350,000	\$4,150,247	\$6,500,567	\$3,111,699,185	\$241,783,663	(\$177,154)	\$738,336	\$242,344,845
Sinking Fund Debentures											
2.875%	2.875%	10/01/50	04/01/01	1,000,000.00	\$1	\$12	\$999,987	\$28,750	\$422	\$4,369	\$33,541
3.125%	3.125%	10/01/54	10/01/04	4,925,000.00	\$50,118	\$12,677	\$4,862,205	\$153,906	\$14,291	\$3,615	\$171,813
3.875%	3.875%	01/01/58	01/01/08	8,000,000.00	\$224,366	\$22,394	\$7,753,240	\$310,000	\$33,196	\$3,313	\$346,509
4.625%	4.625%	01/01/59	01/01/09	3,568,000.00	\$103,736	\$13,094	\$3,451,169	\$165,020	\$13,365	\$1,687	\$180,072
4.750%	4.750%	12/01/61	12/01/11	9,181,000.00	(\$460,232)	\$30,535	\$9,610,697	\$436,098	\$0	\$2,860	\$438,957
Publishing Fee's Annual Notice										\$28,942	\$28,942
Publishing Fee's Annual Notice										\$14,470	\$14,470
Total Sinking Fund Debentures				\$26,674,000	(\$82,011)	\$78,713	\$26,677,297	\$1,093,774	\$61,274	\$59,256	\$1,214,304
Sub. Deferrable Interest Notes											
Sub. Deferrable Interest Notes	8.480%	09/26/95	09/30/35	\$206,190,000		\$5,920,163	\$200,269,837	\$17,484,912		\$171,483	\$17,656,395
Sub. Def. Interest Debentures	8.500%	01/24/97	01/15/27	\$154,640,000		\$1,678,019	\$152,961,981	\$13,144,400		\$65,012	\$13,209,412
Total Sub. Def. Interest Notes				\$360,830,000		\$7,598,182	\$353,231,818	\$30,629,312		\$236,495	\$30,865,807

Description	Coupon Rate	Date Issued	Maturity Date	Face Amount Outstanding	Unamortized Discount or Premium	Unamortized Debt Expense	Carrying Value	Annualized Coupon Interest	Annualized Amortization of Discount or Premium	Annualized Amortization of Debt Expense	Annualized Debt Expense
Transitional Funding Notes											
Class A-2 Int. Trans. Prop. Notes	5.290%	12/16/98	06/25/01	\$143,748,642		\$68,206	\$143,680,436	\$7,604,303		\$289,478	\$7,893,781
Class A-3 Int. Trans. Prop. Notes	5.340%	12/16/98	03/25/02	\$258,860,915		\$133,790	\$258,727,125	\$13,823,173		\$136,026	\$13,959,199
Class A-4 Int. Trans. Prop. Notes	5.390%	12/16/98	06/25/03	\$421,139,085		\$357,880	\$420,781,205	\$22,699,397		\$160,081	\$22,859,478
Class A-5 Int. Trans. Prop. Notes	5.440%	12/16/98	03/25/05	\$598,510,714		\$653,945	\$597,856,769	\$32,558,983		\$164,048	\$32,723,031
Class A-6 Int. Trans. Prop. Notes	5.630%	12/16/98	06/25/07	\$761,489,286		\$958,251	\$760,531,035	\$42,871,847		\$153,606	\$43,025,453
Class A-7 Int. Trans. Prop. Notes	5.740%	12/16/98	12/25/08	\$510,000,000		\$677,105	\$509,322,895	\$29,274,000		\$87,453	\$29,361,453
Total Transitional Funding Notes				\$2,693,748,642		\$2,849,178	\$2,690,899,464	\$148,831,702		\$990,694	\$149,822,396
Pollution Control Obligations											
IL Ind. Poll. Control Fin. Auth.	5.875%	05/15/77	05/15/07	\$45,500,000	\$189,475.54	\$65,848.64	\$45,244,676	\$2,673,125	\$30,930	\$10,749	\$2,714,804
IL Dev. Fin. Auth. Series 1994B	variable	12/14/94	03/01/09	\$42,200,000	\$499.73	\$174,707.78	\$42,024,792	\$1,084,540	\$27	\$22,050	\$1,106,617
IL Dev. Fin. Auth. Series 1994C	variable	10/05/94	10/15/14	\$50,000,000	\$363.77	\$145,624.71	\$49,854,012	\$1,285,000	\$63	\$10,747	\$1,295,810
Total Pollution Control Obligations				\$137,700,000	\$190,339	\$386,181	\$137,123,480	\$5,042,665	\$31,020	\$43,546	\$5,117,230
Purchase Contract Obligations											
Village of Hinsdale	3.000%	04/30/55	04/30/05	\$254,174			\$254,174	\$7,625			\$7,625
Total Purchase Contract Obls.				\$254,174			\$254,174	\$7,625			\$7,625
Medium Term Notes											
3N- 3037	9.170%	10/20/89	10/15/02	\$25,000,000	(\$110,252)	\$7,068	\$25,103,184	\$2,292,500	(\$71,478)	\$4,582	\$2,225,605
3N- 3038	9.170%	10/20/89	10/15/02	\$2,000,000	(\$8,820)	\$565	\$2,008,255	\$183,400	(\$5,718)	\$367	\$178,048
3N- 3039	9.170%	10/20/89	10/15/02	\$25,000,000	(\$110,252)	\$7,068	\$25,103,184	\$2,292,500	(\$71,478)	\$4,582	\$2,225,605
3N- 3040	9.170%	10/20/89	10/15/02	\$23,000,000	(\$101,432)	\$6,502	\$23,094,929	\$2,109,100	(\$65,759)	\$4,216	\$2,047,556
3N- 3041	9.170%	10/20/89	10/15/02	\$25,000,000	(\$110,252)	\$7,068	\$25,103,184	\$2,292,500	(\$71,478)	\$4,582	\$2,225,605
3N- 3032	9.200%	10/18/89	10/15/04	\$14,000,000	(\$207,888)	\$7,880	\$14,200,009	\$1,288,000	(\$58,639)	\$2,223	\$1,231,583
3N- 3033	9.200%	10/18/89	10/15/04	\$14,000,000	(\$207,888)	\$7,880	\$14,200,009	\$1,288,000	(\$58,639)	\$2,223	\$1,231,583
3N- 3034	9.200%	10/18/89	10/15/04	\$10,000,000	(\$148,491)	\$5,628	\$10,142,863	\$920,000	(\$41,885)	\$1,588	\$879,703
3N- 3035	9.200%	10/18/89	10/15/04	\$14,000,000	(\$20,789)	\$7,879	\$14,012,909	\$1,288,000	(\$5,864)	\$2,223	\$1,284,359
3N- 3036	9.200%	10/18/89	10/15/04	\$4,000,000	(\$60,105)	\$2,251	\$4,057,854	\$368,000	(\$16,954)	\$635	\$351,681
Senior Note	Variable	09/14/00	09/30/02	\$200,000,000	(\$363,608)		\$200,363,608	\$8,177,500	(\$242,184)		\$7,935,316
Senior Note	Variable	09/14/00	09/30/03	\$250,000,000	(\$900,356)		\$250,900,356	\$10,534,375	(\$359,945)		\$10,174,430
Total Medium Term Notes				\$606,000,000	(\$2,350,131)	\$59,789	\$608,290,342	\$33,033,875	(\$1,070,021)	\$27,219	\$31,991,073
Notes											
Notes	6.400%	10/15/93	10/15/05	\$235,000,000	\$3,903,483.92	\$229,423	\$230,867,093	\$15,040,000	\$858,814	\$50,476	\$15,949,289
Notes	7.375%	01/09/97	01/15/04	\$150,000,000	(\$95,026.02)	\$65,763	\$150,029,263	\$11,062,500	(\$34,004)	\$23,533	\$11,052,029
Notes	7.625%	01/09/97	01/15/07	\$150,000,000	(\$277,171.13)	\$94,394	\$150,182,777	\$11,437,500	(\$47,811)	\$16,283	\$11,405,972
Notes	6.950%	07/16/98	07/15/18	\$225,000,000	\$20,826,118.67	\$41,374	\$204,132,507	\$15,637,500	\$1,203,727	\$2,391	\$16,843,618
Total Notes				\$760,000,000	\$24,357,405	\$430,955	\$735,211,640	\$53,177,500	\$1,980,725	\$92,683	\$55,250,908
TOTAL				\$7,707,556,816	\$26,265,850	\$17,903,566	\$7,663,387,400	\$513,600,116	\$825,844	\$2,188,229	\$516,614,189

Reacquired Debt		Unamortized Loss or Gain on Reacquired Debt	Carrying Value	Annualized Amortization of Loss or Gain on Reacquired Debt	Annualized Debt Expense
<u>First Mortgage Bonds</u>					
Series 46	14.250%	\$507,678	-\$507,678	\$23,151	\$23,151
Series 47	15.375%	\$1,473,988	-\$1,473,988	\$67,217	\$67,217
Series 48	13.000%	\$3,107,137	-\$3,107,137	\$256,992	\$256,992
Series 44	17.500%	\$136,525	-\$136,525	\$6,226	\$6,226
Series 50	12.250%	\$249,745	-\$249,745	\$11,389	\$11,389
Series 51	13.375%	\$629,098	-\$629,098	\$28,688	\$28,688
Series 49	12.125%	\$832,303	-\$832,303	\$433,593	\$433,593
Series 55	11.750%	\$1,671,529	-\$1,671,529	\$190,733	\$190,733
Series 40	11.125%	\$689,406	-\$689,406	\$96,117	\$96,117
Series 66	12.000%	\$2,579,620	-\$2,579,620	\$117,636	\$117,636
Series 71	11.125%	\$3,065,108	-\$3,065,108	\$139,776	\$139,776
Series 33	9.375%	\$0	\$0	\$0	\$0
Series 56	10.500%	\$3,063,575	-\$3,063,575	\$138,649	\$138,649
Series 68	9.375%	\$0	\$0	\$0	\$0
Series 67	10.250%	\$3,731,187	-\$3,731,187	\$308,607	\$308,607
Series 30	8.750%	\$769,511	-\$769,511	\$132,584	\$132,584
Series 38	9.125%	\$2,128,773	-\$2,128,773	\$366,781	\$366,781
Series 23	8.000%	\$0	\$0	\$0	\$0
Series 60	9.625%	\$2,908,245	-\$2,908,245	\$130,135	\$130,135
Pollution Control 1985	10.375%	\$324,235	-\$324,235	\$40,502	\$40,502
Pollution Control 1985	10.625%	\$1,633,492	-\$1,633,492	\$133,123	\$133,123
Pollution Control 1974A	6.625%	\$71,244	-\$71,244	\$12,562	\$12,562
Series 57	9.500%	\$1,919,606	-\$1,919,606	\$510,931	\$510,931
		<u>\$31,492,004</u>	<u>-\$31,492,004</u>	<u>\$3,145,391</u>	<u>\$3,145,391</u>
<u>Sinking Fund Debentures</u>					
Series 7	15.375%	\$0	\$0	\$0	\$0
Series 4	10.000%	<u>\$570,673</u>	<u>-\$570,673</u>	<u>\$27,368</u>	<u>\$27,368</u>
		<u>\$570,673</u>	<u>-\$570,673</u>	<u>\$27,368</u>	<u>\$27,368</u>

Reacquired Debt		Unamortized Loss or Gain on Reacquired Debt	Carrying Value	Annualized Amortization of Loss or Gain on Reacquired Debt	Annualized Debt Expense
<u>Pollution Control Obligations</u>					
Joliet Series 1981	11.750%	\$262,929	-\$262,929	\$25,854	\$25,854
Pekin Series	11.750%	\$267,140	-\$267,140	\$26,268	\$26,268
Waukegan Series 1981	11.500%	\$84,705	-\$84,705	\$8,329	\$8,329
IEFFA Series 1980	10.125%	\$104,485	-\$104,485	\$10,274	\$10,274
IEFFA Series 1980	10.375%	\$197,901	-\$197,901	\$19,460	\$19,460
IEFFA Series 1979	8.375%	\$35,331	-\$35,331	\$7,188	\$7,188
IEFFA Series 1979	8.500%	\$145,817	-\$145,817	\$29,666	\$29,666
IEFFA Series 1983	9.750%	\$130,174	-\$130,174	\$26,484	\$26,484
IEFFA Series 1984	11.375%	\$413,506	-\$413,506	\$30,417	\$30,417
Pekin Series 1979	6.750%	\$22,742	-\$22,742	\$4,010	\$4,010
Waukegan Series 1979	6.750%	\$17,856	-\$17,856	\$3,148	\$3,148
Pekin Series B	6.750%	\$69,608	-\$69,608	\$12,274	\$12,274
Pekin & Joliet Series 1976	6.800%	\$121,301	-\$121,301	\$21,389	\$21,389
Waukegan Series B	6.875%	\$41,438	-\$41,438	\$7,307	\$7,307
Joliet Series B	6.875%	\$170,995	-\$170,995	\$30,151	\$30,151
Pekin Series 1979	6.875%	\$27,657	-\$27,657	\$4,877	\$4,877
Joliet Series 1979	6.875%	\$23,445	-\$23,445	\$4,134	\$4,134
		<u>\$2,137,027</u>	<u>-\$2,137,027</u>	<u>\$271,229</u>	<u>\$271,229</u>
		<u>\$34,199,704</u>	<u>-\$34,199,704</u>	<u>\$3,443,988</u>	<u>\$3,443,988</u>
		<u>\$7,707,556,816</u>	<u>\$60,465,554</u>	<u>\$17,903,566</u>	<u>\$7,629,187,696</u>
			<u>\$513,600,116</u>	<u>\$4,269,832</u>	<u>\$2,188,229</u>
				<u>\$520,058,177</u>	

Embedded Cost of Long-Term Debt

6.82%

Commonwealth Edison Company

Growth Rate Estimates

Electric Sample

<u>Company</u>	<u>Zacks Earnings</u>	<u>IBES Earnings</u>	<u>Average</u>
American Electric Power	6.70%	6.19%	6.45%
CLECO Corp.	10.00%	10.03%	10.02%
DPL Inc.	10.25%	9.54%	9.90%
DQE Inc.	5.25%	5.67%	5.46%
Kansas City Power and Light	6.00%	5.67%	5.84%
NSTAR	6.60%	6.80%	6.70%
Puget Energy	5.33%	5.50%	5.42%

Gas Sample

<u>Company</u>	<u>Zacks Earnings</u>	<u>IBES Earnings</u>	<u>Average</u>
AGL Resources Inc.	6.59%	6.79%	6.69%
Atmos Energy Corp.	7.33%	7.83%	7.58%
Cascade Natural Gas Corp.	5.30%	5.00%	5.15%
NUI Corp	9.67%	10.95%	10.31%
Northwest Natural Gas Co.	5.75%	4.25%	5.00%
Peoples Energy Corp.	6.50%	5.43%	5.97%
Piedmont Natural Gas Co.	6.75%	5.33%	6.04%
South Jersey Industries	5.15%	6.00%	5.58%

Sources: *Zacks Investment Research*, <http://my.zacks.com>, August 6, 2001.
Institutional Brokers Estimate System, June 14, 2001.

Commonwealth Edison Company

Prices and Dividends

Electric Sample

Company	Current Dividend				Next Dividend Payment Date	Stock Price
	D _{0,1}	D _{0,2}	D _{0,3}	D _{0,4}		
American Electric Power	\$ 0.600	\$ 0.600	\$ 0.600	\$ 0.600	12/10/2001	\$ 45.2400
CLECO Corp.	0.213	0.213	0.218	0.220	11/15/2001	21.9900
DPL Inc.	0.235	0.235	0.235	0.235	9/1/2001	25.6400
DQE Inc.	0.400	0.420	0.420	0.420	10/1/2001	22.5700
Kansas City Power and Light	0.415	0.415	0.415	0.415	9/20/2001	25.0000
NSTAR	0.500	0.515	0.515	0.515	11/1/2001	43.0100
Puget Energy	0.460	0.460	0.460	0.460	11/15/2001	24.1300

Gas Sample

Company	Current Dividend				Next Dividend Payment Date	Stock Price
	D _{0,1}	D _{0,2}	D _{0,3}	D _{0,4}		
AGL Resources Inc.	\$ 0.270	\$ 0.270	\$ 0.270	\$ 0.270	9/1/2001	\$ 24.4200
Atmos Energy Corp.	0.285	0.290	0.290	0.290	9/10/2001	21.2600
Cascade Natural Gas Corp.	0.240	0.240	0.240	0.240	11/15/2001	20.3600
NUI Corp	0.245	0.245	0.245	0.245	9/15/2001	22.9700
Northwest Natural Gas Co.	0.310	0.310	0.310	0.310	11/15/2001	24.7400
Peoples Energy Corp.	0.500	0.510	0.510	0.510	10/15/2001	37.7000
Piedmont Natural Gas Co.	0.365	0.365	0.385	0.385	10/15/2001	33.0000
South Jersey Industries	0.365	0.365	0.370	0.370	10/2/2001	31.3100

Sources: *The Wall Street Journal*, August 13, 2001.
Standard & Poor's, *Utility Compustat*.
<http://biz.yahoo.com/nnews>

Commonwealth Edison Company

Expected Quarterly Dividends

Electric Sample

Company	D _{1,1}	D _{1,2}	D _{1,3}	D _{1,4}
American Electric Power	0.639	0.639	0.639	0.639
CLECO Corp.	0.220	0.220	0.239	0.242
DPL Inc.	0.235	0.258	0.258	0.258
DQE Inc.	0.420	0.443	0.443	0.443
Kansas City Power and Light	0.415	0.439	0.439	0.439
NSTAR	0.515	0.550	0.550	0.550
Puget Energy	0.485	0.485	0.485	0.485

Gas Sample

Company	D _{1,1}	D _{1,2}	D _{1,3}	D _{1,4}
AGL Resources Inc.	\$ 0.270	\$ 0.288	\$ 0.288	\$ 0.288
Atmos Energy Corp.	0.290	0.312	0.312	0.312
Cascade Natural Gas Corp.	0.252	0.252	0.252	0.252
NUI Corp	0.270	0.270	0.270	0.270
Northwest Natural Gas Co.	0.326	0.326	0.326	0.326
Peoples Energy Corp.	0.510	0.540	0.540	0.540
Piedmont Natural Gas Co.	0.385	0.385	0.408	0.408
South Jersey Industries	0.370	0.370	0.391	0.391

Commonwealth Edison Company

DCF Cost of Common Equity Estimates

Electric Sample

<u>Company</u>	<u>Estimate</u>
American Electric Power	12.29%
CLECO Corp.	14.41%
DPL Inc.	14.14%
DQE Inc.	13.70%
Kansas City Power and Light	13.22%
NSTAR	11.96%
Puget Energy	<u>13.84%</u>
Average	<u>13.37%</u>

Gas Sample

<u>Company</u>	<u>Estimate</u>
AGL Resources Inc.	11.63%
Atmos Energy Corp.	13.76%
Cascade Natural Gas Corp.	10.29%
NUI Corp	15.39%
Northwest Natural Gas Co.	10.46%
Peoples Energy Corp.	11.91%
Piedmont Natural Gas Co.	11.08%
South Jersey Industries	<u>10.67%</u>
Average	<u>11.90%</u>

Commonwealth Edison Company

Risk Premium Analysis

Interest Rates as of August 10, 2001

U.S. Treasury Bills ¹		U.S. Treasury Bonds ²	
Discount Rate	Effective Yield	Bond Equivalent Yield	Effective Yield
3.36%	3.48%	5.52%	5.60%

Risk Premium Cost of Equity Estimates

Proxy Group	Risk-Free Rate	Beta	Risk Premium	Cost of Common Equity
Electric Sample	5.60%	+ 0.55	$\times (15.31\% - 5.60\%) =$	10.94%
Gas Sample	5.60%	+ 0.56	$\times (15.31\% - 5.60\%) =$	11.06%

¹ U.S. Treasury bill yields are quoted on a 360-day discount basis. The effective yield is determined as follows:

$$\text{Effective yield} = \left(1 + \frac{\text{discount rate} \times \left(\frac{\text{days to maturity}}{360} \right)}{1 - \text{discount rate} \times \left(\frac{\text{days to maturity}}{360} \right)} \right)^{\left(\frac{365}{\text{days to maturity}} \right)} - 1$$

where *days to maturity* equals ninety-one days.

² The bond equivalent yield on U.S. Treasury bonds represents a nominal rather than an effective yield. The effective yield is calculated as follows:

$$\text{Effective yield} = [1 + (\text{bond equivalent yield} \div 2)]^2 - 1.$$

Commonwealth Edison Company

Risk Comparison

Electric Sample

<u>Company</u>	<u>S&P Rating</u>	<u>S&P Business Position</u>	<u>Common Equity Ratio²</u>
American Electric Power	A-	4	34.35%
CLECO Corp.	BBB+	6	37.11%
DPL Inc.	BBB+	6	25.83%
DQE Inc.	BBB+	6	32.98%
Kansas City Power and Light	A-	6	38.03%
NSTAR	A	3	33.31%
Puget Energy	BBB+	4	35.32%
Average	A-/BBB+	5	33.85%

Gas Sample

<u>Company</u>	<u>S&P Rating</u>	<u>S&P Business Position</u>	<u>Common Equity Ratio²</u>
AGL Resources Inc.	A-	3	37.66%
Atmos Energy Corp.	A-	4	47.46%
Cascade Natural Gas Corp.	BBB+	3	47.77%
NUI Corp	A	3	40.62%
Northwest Natural Gas Co.	BBB	3	48.13%
Peoples Energy Corp.	A+	4	43.18%
Piedmont Natural Gas Co.	A	3	50.52%
South Jersey Industries ¹	BBB+	3	36.97%
Average	A-	3.25	44.04%
Commonwealth Edison Company	A-	4	39.36%

¹ S&P rating is for primary subsidiary South Jersey Gas Company.

² S&P *Utility Compustat*, Average Common Equity ratios for the Four Quarters Ending with the First Quarter of 2001.

ICC Docket No. 01-0423
Response of Commonwealth Edison Company
To Staff's Data Requests JF-1.01 through JF-1.27
To Commonwealth Edison Company
Dated June 27, 2001

JF-1.20 Please provide the following forecasted financial statements for the years 2001 and 2002:

- a) Income Statement;
- b) Balance Sheet;
- c) Statement of Cash Flows; and
- d) Statement of Retained Earnings.

Further provide the underlying assumptions supporting the financial forecast. If the financial forecast shows any new issuances of debt, provide the assumptions with regard to the terms of the new debt (i.e., the amount, interest rate, date of issue, and term to maturity).

RESPONSE: (Confidential & Proprietary – 2nd level of Protective Order)

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